Atty Docket: ASMMC.047AUS

Deposit gate oxide

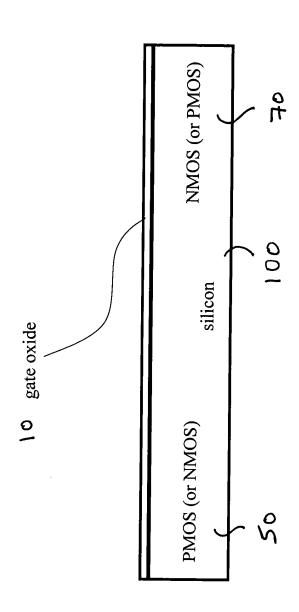
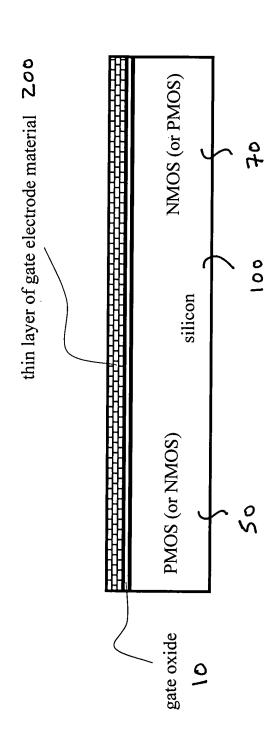
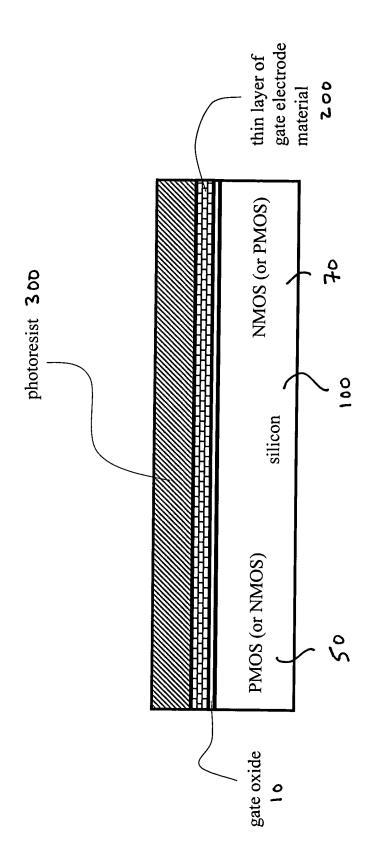


FIG.

Deposit thin layer of gate electrode material





Deposit photoresist

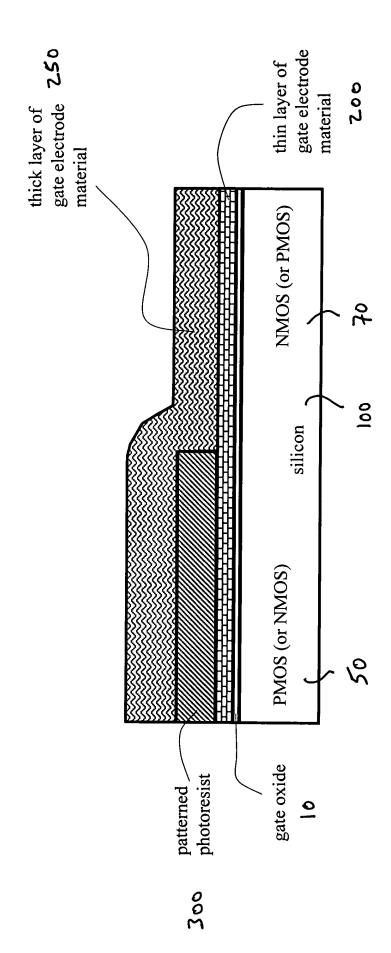
FIG. 3

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gate electrode material thin layer of NMOS (or PMOS) 40 patterned photoresist 300 000 silicon PMOS (or NMOS) 20 gate oxide

Pattern and etch photoresist

FIG. 4



Deposit thick layer of gate electrode material

FIG. 5

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Chemical mechanical polishing (CMP)

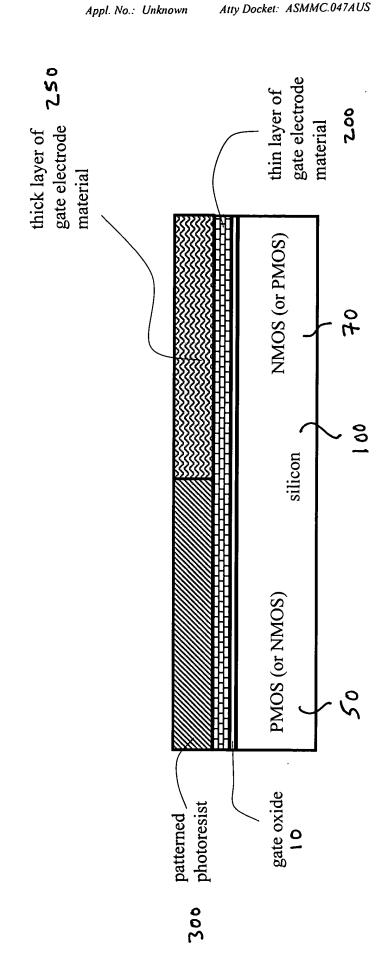
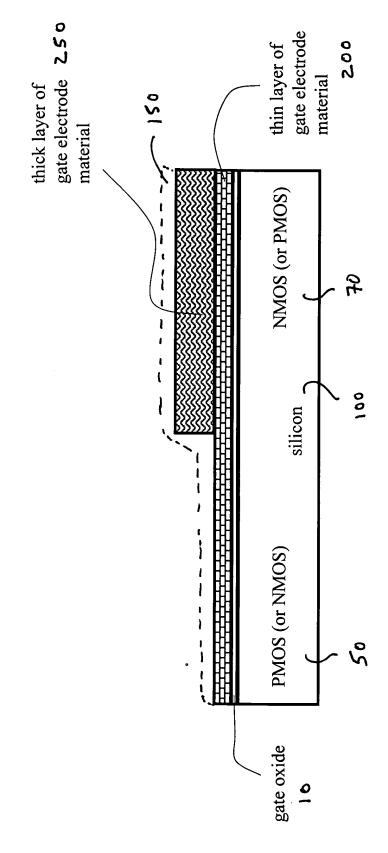
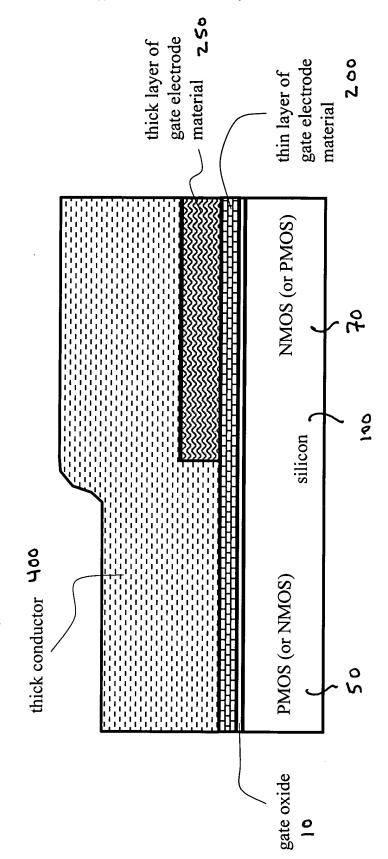


FIG. 6



Etch photoresist

FIG. 7



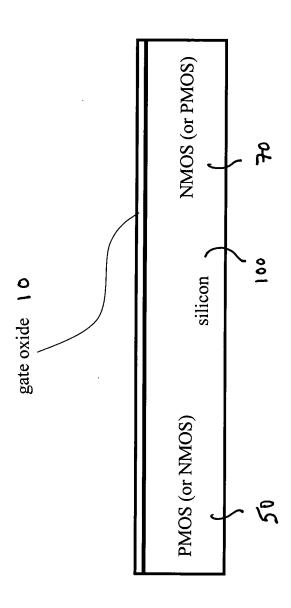
Deposit thick conductor, such as poly-Si, W, Al, Ni, Ru, RuO₂

FIG. 8

250 gate electrode thick layer of 200 gate electrode thin layer of material material NMOS (or PMOS) 70 8 silicon thick conductor 400 PMOS (or NMOS) gate oxide

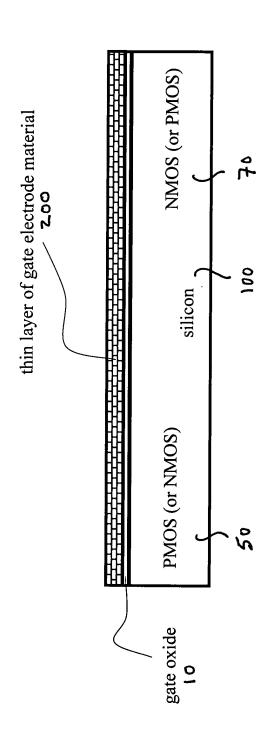
Chemical mechanical polishing (CMP)

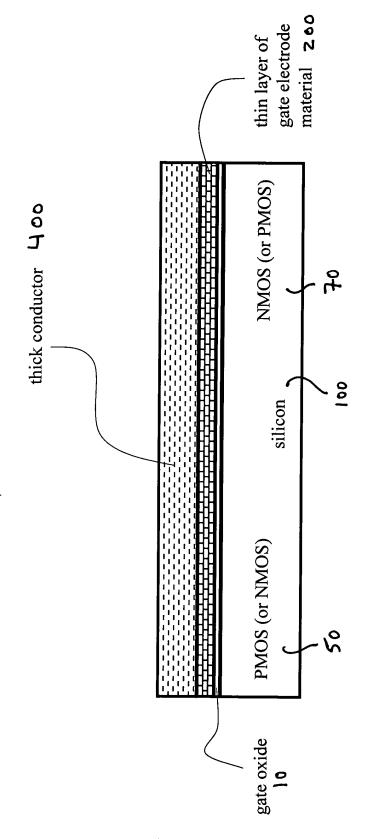
Deposit gate oxide



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Deposit thin layer of gate electrode material





Deposit thick conductor

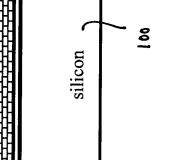
gate electrode material 200 thick 400 conductor thin layer of NMOS (or PMOS) 3 00 photoresist 001 silicon PMOS (or NMOS) gate oxide

Deposit photoresist

200 gate electrode material 200 thin layer of NMOS (or PMOS) 40 Pattern and etch thick conductor 100 silicon photoresist | 300 PMOS (or NMOS) 20 gate oxide thick conductor 400

thin layer of gate electrode material 200

NMOS (or PMOS)



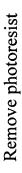
PMOS (or NMOS)

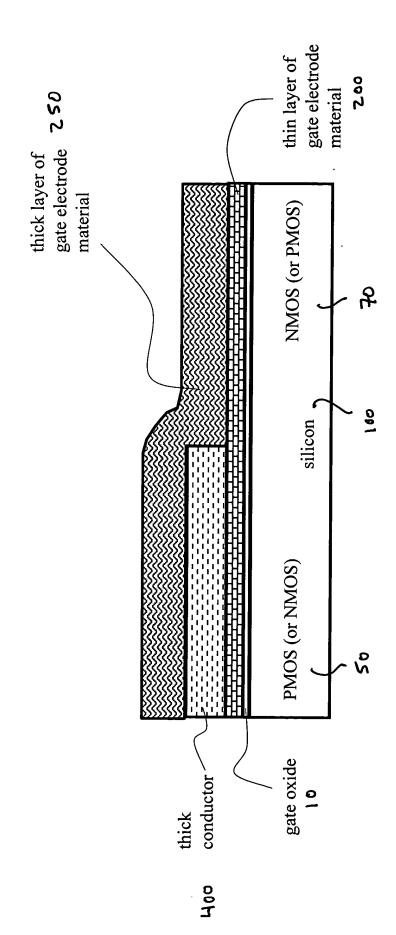
gate oxide

thick conductor

00 h

FIG. 15

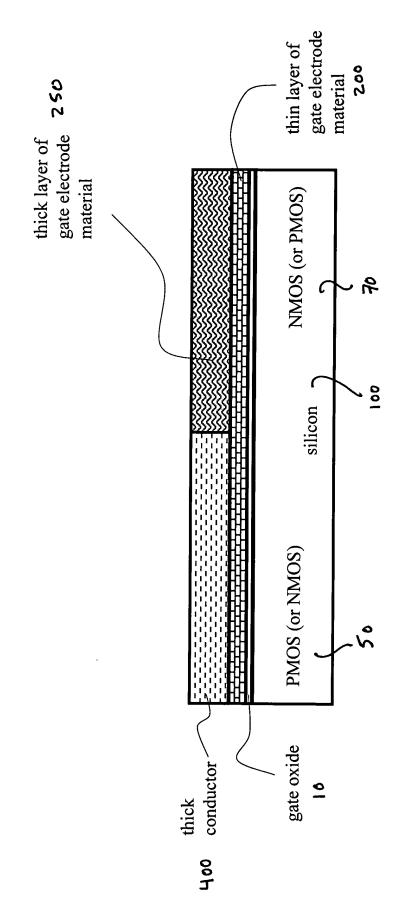




Deposit thick gate electrode

FIG. 16

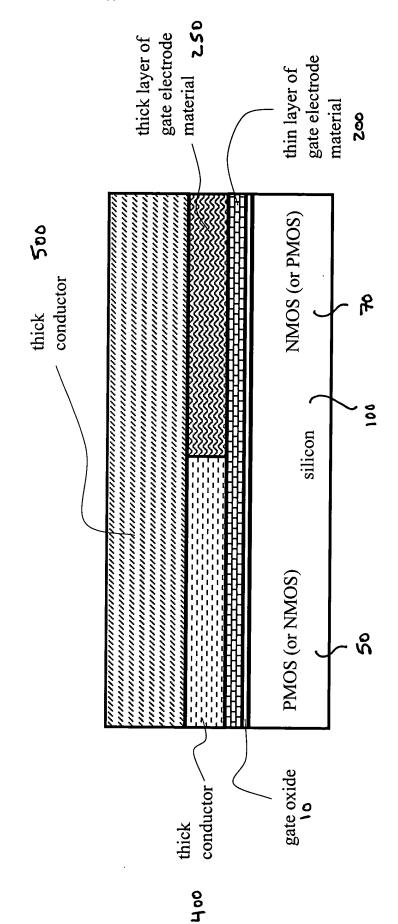
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Chemical mechanical polishing (CMP)

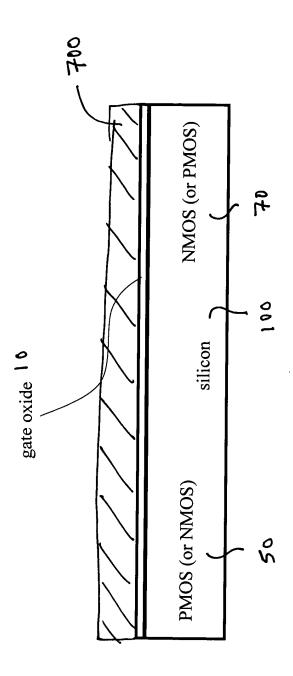
FIG. 1

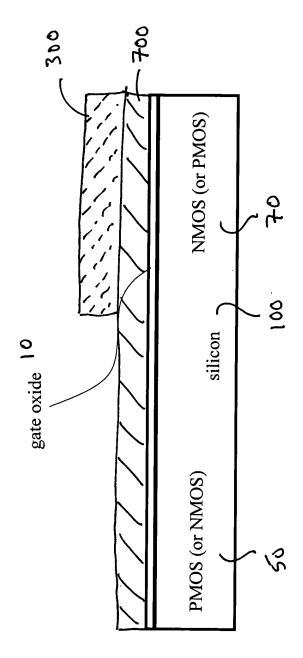
Atty Docket: ASMMC.047AUS



Deposit thick conductor

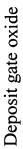
Deposit gate oxide





Deposit gate oxide

FIG. 20



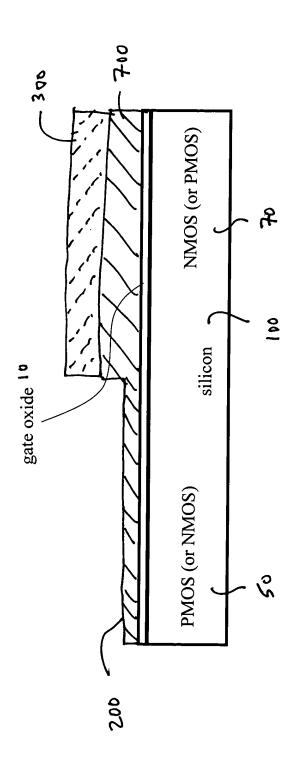
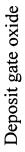


FIG.1



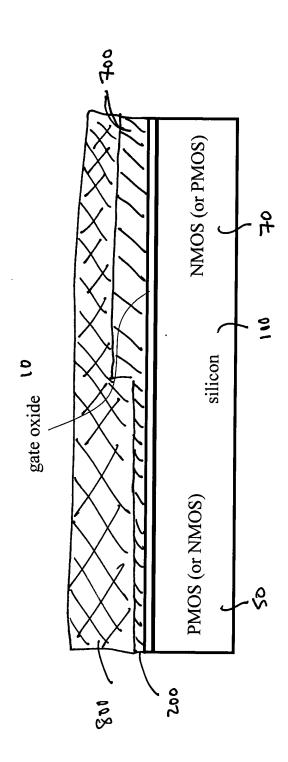


FIG. 12